

# Exhibit C

## (Pt. 4 of 4)

Inline's Citation to Dictionaries and Treatises	Inline's Citation to the Patent Specification	Inline's Claim Construction	Claim Language	AOL's and EarthLink's Claim Construction	AOL's and EarthLink's Citation to Intrinsic Evidence
478 (3rd ed. 1990). <i>See also</i> Appendix A.		transceiver includes electrical circuitry that reduces the effects caused by the connection of the branch wires or set of wires.	that forms a branch on the conductive path joining the first transceiver and the second transceiver and wherein the second transceiver further includes circuitry for processing the second signal to mitigate effects resulting from the branch on the conductive path.		
Transceiver: A device capable of both sending and receiving information. HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 478 (3rd ed. 1990). <i>See also</i> Appendix A.	'718 Col. 2:20-38 '718 Col. 12:45-65 '718 Col. 28:51-59	One or more telephone devices are connected at a jack that connects to the wires that connect the two transceivers.	39. The system of claim 38 wherein  at least some of the one or more telephone devices are coupled to the two-wire telephone network on branches from the path on the two-wire telephone network joining the first transceiver and the second transceiver.		

## **EXHIBIT 3**

## APPENDIX A

### **Glossary of Dictionary Definitions Provided by Inline**

#### **Band (See also Frequency)**

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 15 (1st ed. 1982). -1. A range of frequencies between upper and lower limits. 2. A group of tracks on magnetic drum or on one side or a magnetic disc.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 79 (Frank Jay ed., 3rd ed. 1984). - 1. (electronic computers) A group of circular recording tracks, on a moving storage device such as a drum or disc. *See*: channel. 2. (data transmission) Range of frequency between two defined limits.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 39 (1984).- 1. A group of tracks on a magnetic drum or on one side of a magnetic disk. 2. In data communication, the frequency spectrum between two defined limits.

THE NEW MERRIAM-WEBSTER DICTIONARY 71 (Frederick C. Mish ed., 1989).- 1. Something that binds, ties, or goes around. 2. A strip or stripe that can be distinguished (as by color or texture) from nearby matter. 3. A range of wavelengths (as in radio) 4. A group of grooves on a phonograph record containing recorded sound. Vb. 1. To tie up, finish, or enclose with a band. 2. To gather or unite in a company or for some common end.

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA DICTIONARY OF ELECTRONICS 57 (1st ed. 1981).- Range of frequency spectrum between two limits. *Frequency Data*.

#### **Circuitry (or Circuit)**

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 34 (1st ed. 1982). -("circuit")- 1. A pair of complementary channels, which provide bidirectional communication, with associated equipment terminating in two exchanges. 2. A network of circuit elements (resistances, reactances and semiconductors) which perform specific functions. 3. A schematic diagram or a circuit.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 102-03 (3rd ed. 1990).- ("circuit")- The physical connection of channels, conductors and equipment between two given points. Includes both sending and receiving capabilities.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 143 (Frank Jay ed., 3rd ed. 1984). -

("circuit")- 1. (National Electrical Safety Code) A conductor or system of conductors through which an electric currents is intended to flow. 2. A network providing one or more closed paths. See Network analysis. 3. (machine winding) The element of a winding that comprise one circuit or several circuits connected in parallel. 4. (circuit and systems) An interconnection of electrical elements. See: network. 5. (data transmission) (1.) A conductor or system of conductors through which an electric currents is intended to flow. (2.) A network providing one or more closed path. See: multipoint circuit.

THE NEW MERRIAM-WEBSTER DICTIONARY 146 (Frederick C. Mish ed., 1989).- ("circuitry")- the plan or the components of an electric circuit.

S W AMOS & R S AMOS, NEWNES DICTIONARY OF ELECTRONICS 53 (3rd ed. 1996).- ("circuit")- 1. A path consisting of a conductor or a system of conductors through which an electric current can flow. 2. A network which may contain active and passive devices and may have one or more closed paths amplifier may be said to have a circuit. 3. In telecommunications a means of bidirectional communication between two points.

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA OF ELECTRONICS 98 (1st ed. 1981). -("circuit")- Path for transmitting electric current.

*Apex Inc. v. Raritan Computer, Inc.* 325 F.3d 1364, 1373 (Fed Cir. 2003) ("The term 'circuit' is defined as 'the combination of a number of electrical devices and conductors that, when interconnected to form a conducting path, fulfill some desired function.' Dictionary of Computing, 75 (4<sup>th</sup> ed. 1996).... In light of this definition, it is clear that the term 'circuit,' by itself connotes some structure.")

DICTIONARY OF COMPUTING, (Valerie Illingworth ed., 3d ed. 1991) - The combination of a number of electrical devices and conductors that when interconnected to form a conducting path, fulfill some desired function.

### Exchange or telephone exchange

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 77 (1st ed. 1982).-("exchange")- 1. A room or building equipped so that telephone lines terminating there may be interconnected as required. The equipment may include manual or automatic switching equipment. 2. Switching exchange: an aggregate of traffic-carrying devices, switching stages, controlling and signaling means at a network node that enables subscriber lines and/or other telecommunication circuits to be interconnected as required by individual callers.

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 77 (1st ed. 1982). -("Telephone exchange")- In the US an area within which telephone service is provided without toll charges. In Europe, a telephone central office.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 185 (3rd ed. 1990).- ("exchange")- 1. Sometimes used to refer to a telephone switching center - a physical room or building. 2. An

area in which there is a uniform set of charges for telephone service. Outside North America, telephone central offices are called "Public Exchanges."

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 463 (3rd ed. 1990).- ("telephone exchange")- A switching center for connecting and switching phone lines. A European term for what North Americans call central office.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 329 (Frank Jay ed., 3rd ed. 1984). - ("exchange")- See: central office exchange; private automatic exchange; private automatic branch exchange; private branch exchange; exchange service.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 923 (Frank Jay ed., 3rd ed. 1984). - ("telephone exchange")- (data transmission). A unit of a telephone communication system for the provision of communication service in a specified area which usually embraces a city, town, or village, and its environs. Incoming lines are connected to outgoing lines as required by the individual caller dial code.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 183 (1984).- ("exchange")- A room or building equipped so that telecommunication lines terminated there may be interconnected as required. The equipment may include manual or automatic switching equipment. See: data-switching exchange, private automatic branch exchange, private automatic exchange, private branch exchange, trunk exchange. (C) see also exchange area, exchange area facilities.

THE NEW MERRIAM-WEBSTER DICTIONARY 262 (Frederick C. Mish ed., 1989).- ("exchange")- 1. The giving or taking of one thing in return for another : trade 2. A substituting of one thing for another. 3. Interchange of valuables and esp. of bills of exchange or money of different countries. 4. A place where things and services are exchanged; esp : a marketplace for securities 5. A central office in which telephone lines are connected for communication.

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 155 (rev. ed. 1991). - ("telephone exchange")- See CENTRAL OFFICE, EXCHANGE.

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 61 (rev. ed. 1991). - ("exchange")- 1. The geographical area, regardless of political boundaries, that is billed by a telephone company according to a single charge rate, which has been approved by a government regulatory body. Often synonymous with office. For the five categories of offices see *office class*. 2. The place where telecommunications lines terminate and may be interconnected via manual or automatic switching equipment. See also *electronic switching system*.

### External

THE NEW MERRIAM-WEBSTER DICTIONARY 282 (Frederick C. Mish ed., 1989). – 1: Outwardly perceivable; *also*: superficial 2: of, relating to, or located on the outside or an outer part 3: arising or acting from without; *also* : foreign.

**Filter** (See also Low Pass Filter, High Pass Filter)

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 81 (1st ed. 1982). – 1. A network that passes desired frequencies but greatly attenuates other frequencies. 2. A device for use on power or signal lines, specifically designed to pass only selected frequencies and to attenuate substantially all other frequencies. There are two basic types of filters: (a) active filters: those which require the application of power for the utilization of their filtering properties: and (b) passive filters: those which use inductance-capacitance components and do not require the application of power for the utilization of their filtering properties.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 200 (3rd ed. 1990). – A device which transmits a select range of energy. An electrical filter transmits a selected range of frequencies, while stopping (attenuating) all others. It is used to suppress unwanted frequencies or noise, or to separate channels in communication circuits. Such a filter might be called a BANDPASS filter. You can also use a filter to remove certain characters you might be receiving over a data communications channel, for example control characters, or higher-order nonstandard ASCII bits.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 352 (Frank Jay ed., 3rd ed. 1984). – 1. (wave filter). A transducer for separating waves on the basis of their frequency. Note: A filter introduced relatively small insertion loss to waves in one or more frequency bands and relatively large insertion loss to waves of other frequencies. 2. (computing system). (A) A device or program that separates data, signals or material in accordance with specified criteria. (B) A mask. 3. (illuminating engineering). A device for changing, by transmission or reflection, the magnitude or the upon it. Filters are called selective (or colored) or neutral, according to whether or not they alter the spectral distribution of the incident flux. 4. *See*: band-pass filter; high-pass filter; low-pass filter.

THE NEW MERRIAM-WEBSTER DICTIONARY 282 (Frederick C. Mish ed., 1989). – 1. A porous material through which a fluid is passed to separate out matter in suspension; *also* : a device containing such material. 2. A device for suppressing waves of certain frequencies; *esp*: one (as for a camera) that absorbs light of certain colors.

S W AMOS & R S AMOS, NEWNES DICTIONARY OF ELECTRONICS 132 (3rd ed. 1996). – A network which passes signals with frequencies within certain bands (passbands) with little attenuation but greatly attenuates signals within other bands (stopbands).

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA OF ELECTRONICS 231 (1st ed. 1981). – Arrangement of electronic components that allows some frequencies to pass and blocks others. *Active filters*, *Passive Filters*.

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 65 (rev. ed. 1991). - A device used to control the frequencies that can pass along a circuit, enabling selected frequencies to pass without significant attenuation but blocking frequencies that are not desired. See also *low pass filter*, *band pass filter* and *high pass filter*.

**Frequency (See also Band)**

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 86 (1st ed. 1982).- The number of complete cycles of a periodic activity which occur in a unit time, *i.e.* the number of times the quantity passes through its zero value in the same sense in unit time. If T is the period of a repetitive phenomenon, then the frequency f is  $1/T$ . In SI units the period is expressed in seconds, and the frequency in expressed in hertz.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 208-09 (3rd ed. 1990).- The rate at which an electrical current alternates, usually measured in Hertz. Hertz is a unit of measure which means "cycles per second."

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 368 (Frank Jay ed., 3rd ed. 1984).- (periodic function) (wherein time is the independent variable) 1. (general) The number of periods per unit time. 2. (automatic control) The number of periods, or specified fractions or periods, per unit time. *Note:* The frequency may be stated in cycles per second, or in radians per second, where 1 cycles =  $2\pi$  radians. 3. (data transmission) (Periodic function) (Wherein time is the independent variable). (1.) (general) The number of periods per unit time. (2.) (Automatic control) The number of periods, or specified fractions periods, per unit time. *Note:* The frequency may be stated in cycles per second, or in radians per second, where 1 cycles >> two radians. (3.) (Transformer) The number of periods occurring per unit time. (4.) (Pulse terms) The reciprocal of period. 4. (electric and magnetic fields from ac power lines) The number of complete cycles of sinusoidal variation per unit time. Electric and magnetic field components have a fundamental frequency equal to that of the transmission voltages and currents. *Note:* For ac transmission the frequency is 60 Hertz (Hz) in North America and 50 Hz in Europe and other areas of the world. 5. (electric installations on shipboard) The frequency of a periodic quantity, in which time is the independent variable, is the number of periods occurring in unit time. 6. (Pulse terms) A pulse radar in which the transmitter carrier frequency is changed between pulses in a random or pseudo-random way by an amount comparable to the reciprocal of the pulsewidth, or a multiple thereof. 7. (power and distribution transformer) The number of periods occurring per unit time. 8. (radio wave propagation) Of a periodic wave, the number of identical cycles per second.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 210 (1984).- rate of signal oscillation in hertz.

THE NEW MERRIAM-WEBSTER DICTIONARY 303 (Frederick C. Mish ed., 1989).- 1. The fact or condition of occurring frequently. 2. Rate of occurrence. 3. The number of cycles per second of



an alternating current. 4. The number of waves (as of sound or electromagnetic energy) that pass a fixed point each second.

S W AMOS & R S AMOS, NEWNES DICTIONARY OF ELECTRONICS 138 (3rd ed. 1996).– (“frequency band”)- In general the range of frequencies between specified upper and lower limits. In particular one of the following frequency ranges which are agreed internationally...

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA OF ELECTRONICS 240 (1st ed. 1981).– The number of waves that pass a fixed point in one second, expressed in hertz, abbreviated Hz.

### **High Pass Filter** (See also Low Pass Filter, Filter)

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 95 (1st ed. 1982). – (“high-pass filter”)- Network which passes signal of higher than a specified frequency but attenuates signals of all lower frequencies.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 226 (3rd ed. 1990).– A filter which passes frequencies above a certain frequency and stops (attenuates) those below.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 413 (Frank Jay ed., 3rd ed. 1984).– (“high-pass filter”)- (data transmission). A filter having a single transmission band extending from some cutoff frequency, not zero, up to infinite frequency.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 229 (1984). - (“high-pass filter”)- A filter which passes frequencies above a given frequency and attenuates all others.

S W AMOS & R S AMOS, NEWNES DICTIONARY OF ELECTRONICS 157 (3rd ed. 1996).– (“high-pass filter”)- A filter designed to pass signals at frequencies above a specified cut-off frequency. Thus the passband extends from the cut-off frequency to an infinitely-high frequency. In general such filters comprise series capacitors and shunt inductors.

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA OF ELECTRONICS 289 (1st ed. 1981).– (“high-pass filter”)- Filter that transmits frequencies above a cutoff frequency. *Active Filters, Passive Filters.*

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 76 (rev. ed. 1991).– A filter that allows all frequencies above a particular cutoff point to pass along a circuit while blocking all frequencies below that point. Contrast with low pass filter and band pass filter.

### **Information**

THE NEW MERRIAM-WEBSTER DICTIONARY 390 (Frederick C. Mish ed., 1989).— 1: the communication or reception of knowledge or intelligence 2: knowledge obtained from investigation, study, or instruction: FACTS, DATA

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 455-56 (Frank Jay ed., 3rd ed. 1984). - (1) (general). The meaning assigned to data by known conventions. (2) (nuclear power generating station)....

### **Interface**

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 104 (1st ed. 1982).— 1. A shared boundary or point common to two or more similar or dissimilar command and control systems, subsystems, or other entities against which or at which, or across which useful information flow takes place. 2. A concept involving the definition of the interconnection between two equipments or systems. The definition includes the type, quantity, and function of the interconnecting circuits and the type and form of signals to be interchanged via those circuits. Mechanical details of plugs, sockets, and pin numbers, etc., may be included within the context of the definition. 3. The process of interrelating two or more dissimilar circuits or systems.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 455-56 (Frank Jay ed., 3rd ed. 1984).— (programmable instrumentation) A shared boundary between a considered system and another system, or between parts of a system through which information is conveyed. 5. (test, measurement and diagnostic equipment) A shared boundary involving the specification of the interconnection between two equipments or systems. The specification includes the type, quantity and function of the interconnection circuits and the type and form of signals to be interchanged via those circuits. *See*: adapter.

THE NEW MERRIAM-WEBSTER DICTIONARY 390 (Frederick C. Mish ed., 1989).— 1. A surface forming a common boundary of two bodies, spaces, or phases (an oil-water ~) 2. The place at which two independent systems meet and act on or communicate with each other <the man-machine> 3. The means by which interaction or communication is effected at an interface.

### **Low Pass Filter** (See also High Pass Filter, Filter)

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 82 (1st ed. 1982).— Filter which greatly attenuates signals of higher than a specified frequency, but passes with minimal attenuation all signals lower in frequency.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 276-77 (3rd ed. 1990).— ("Low pass")— A specific frequency below which a filter will allow all frequencies to pass. Opposite of high pass.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 507 (Frank Jay ed., 3rd ed. 1984). ("low-pass filter")– (data transmission) A filter having a single transmission band extending from zero frequency up to some cutoff frequency, not infinite.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 296 (1984). - ("low pass") – A filter that transmits low-frequency signals.

S W AMOS & R S AMOS, NEWNES DICTIONARY OF ELECTRONICS 189-90 (3rd ed. 1996). - ("low-pass filter")– A filter designed to pass signals at frequencies below a specified cut-off frequency. Thus the passband begins at zero frequency and extends to the cut-off frequency. In general such filters comprise series inductors and shunt capacitors.

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA OF ELECTRONICS 341 (1<sup>st</sup> ed. 1981).– ("low-pass filter")– Filter circuit that passes all frequencies below the cutoff frequency and blocks frequencies above it. *Active Filters, Passive Filters.*

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 92 (rev. ed. 1991).– A filter used to allow all frequencies below a particular cutoff point to pass along a circuit without attenuation while blocking all frequencies above the point. Contrast with high pass filter and band pass filter.

### Signal

GRAHAM LANGLEY, TELEPHONY'S DICTIONARY 180 (1st ed. 1982).– 1. The information that is transferred over a communications system by electrical or optical means. 2. An alerting signal. 3. An acoustic or visual device which attracts attention by lighting up or emitting sound. 4. In a Specification & Description Language, a flow of data conveying information to a process. 5. A time-dependent phenomenon carrying information. 6. As applied to electronic, any transmitted electrical impulse. 7. A type of message, the text of which consists of more or more letters, words, characters, signal flags, visual displays or special sounds with prearranged meanings and which is conveyed or transmitted by visual, acoustical or electrical means.

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 423 (3rd ed. 1990).– 1. An electrical wave used to convey information. 2. An alert. 3. An acoustic device (e.g. a bell) or a visual device (e.g. a lamp) which calls attentions. To transmit an information signal or alerting signal.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC., IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 836-37 (Frank Jay ed., 3rd ed. 1984). -1. (data transmission) (A) A visual, audible or other indication used to convey information. (B) The intelligence, message or effect to be conveyed over a communication system. (C) A signal wave; the physical embodiment of a message. 2. (overhead-power-line corona and radio noise) The intelligence, message, or effect to be conveyed over a communication system. 3. (programmable instrumentation) The physical representation of information. *Note:* For the purpose of this standard, this is a restricted definition of what is often called "signal" in more

general terms, and is hereinafter referred to digital electrical signals only. 4. (computing system) The event or phenomenon that conveys data from one point to another. 5. (control) (industrial control) Information about a variable that can be transmitted in a system. 6. (telephone switching systems) An audible, visual or other indication of information. 7. (circuits and systems) A phenomenon (visual, audible, or otherwise) used to convey information. The signal is often coded, such as a modulated waveform, so that it requires decoding to be intelligible.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 478 (1984).— 1. A variation of a physical quantity, used to convey data. (E) 2. A wave used to convey information such as voice, television, data, or information for network control. (F) 3. See start signal, stop signal.

THE NEW MERRIAM-WEBSTER DICTIONARY 672 (Frederick C. Mish ed., 1989).— 1. A sign agreed on as the start of some joint action. 2. A sign giving warning or notice of something. 3. The message, sound, or image transmitted in electronic communication (as radio)

S W AMOS & R S AMOS, NEWNES DICTIONARY OF ELECTRONICS 295 (3rd ed. 1996).— In electronics an electrical quantity varying with time so as to convey information. In equipment, signals are usually in the form of varying voltages or currents but in the link between a radio transmitter and receiver signals have the form of modulated electromagnetic waves.

JOHN DOUGLAS-YOUNG, ILLUSTRATED ENCYCLOPEDIA OF ELECTRONICS 523 (1st ed. 1981).— Any detectable physical quality, quantity, or impulse that can be used to convey information from one point to another.

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 139-40 (rev. ed. 1991).— 1. In telephony and in public networks, an instruction forming part of the process in setting up, maintaining or clearing a call. See also, for example, *signaling* and *signals*. 2. In general, any electrical pulses transmitted in a network to represent message information or control information in handling the process of communications.

### Transceiver

HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 478 (3rd ed. 1990).— A device capable of both sending and receiving information.

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 549 (1984). - A terminal that can transmit and receive traffic.

THE NEW MERRIAM-WEBSTER DICTIONARY 760 (Frederick C. Mish ed., 1989).— A radio transmitter-receiver that uses many of the same components for transmission and reception.

JOHN GRAHAM, THE FACTS ON FILE DICTIONARY OF TELECOMMUNICATIONS 161 (rev. ed. 1991). - A device that can transmit and receive information.

**Voiceband**

JERRY M. ROSENBERG, COMPUTERS, DATA PROCESSING & TELECOMMUNICATIONS 577 (1984).—  
The 300 Hz to 3400 Hz band used on telephone equipment for the transmission of voice and data.

11 FCC Rcd 13387 - The voiceband for analog interfaces is the frequency band from 200 Hz to 3995 Hz.